Chemical	CAS No.
Silica, amorphous, precipitated and gel	7699–41–4
Silica gel	63231–67–4
Silica gel, precipitated, crystalline-free	112926-00-
	8
Silica, hydrate	10279-57-9
Silica, vitreous	60676-86-0
Soapbark (Quillaja saponin)	1393-03-9
Sodium alginate	9005-38-3
Sodium chloride	7647-14-5
Ultramarine blue (C.I. Pigment Blue 29)	57455-37-5
Urea	57-13-6
Xanthan gum	11138-66-2

[67 FR 36537, May 24, 2002, as amended at 67 FR 56229, Sept. 3, 2002; 67 FR 78718, Dec. 26, 2002; 68 FR 16437, Apr. 4, 2003; 68 FR 18552, Apr. 16, 2003; 68 FR 52700, Sept. 5, 2003; 69 FR 4077, Jan. 28, 2004; 69 FR 9963, Mar. 3, 2004; 69 FR 29894, May 26, 2004; 69 FR 33578, June 16, 2004]

# § 180.960 Polymers; exemptions from the requirement of a tolerance.

Residues resulting from the use of the following substances, that meet the definition of a polymer and the criteria specified for defining a low-risk polymer in 40 CFR 723.250, as an inert ingredient in a pesticide chemical formulation, including antimicrobial pesticide chemical formulations, are exempted from the requirement of a tolerance under FFDCA section 408, if such use is in accordance with good agricultural or manufacturing practices.

Polymer	CAS No.
Acetic acid ethenyl ester, polymer with ethenol and (α)-2-propenyl-(α)-hydroxypoly (oxy-1,2-ethanediyl) minimum number average molecular weight (in amu), 15,000	137091–12–4
Acrylic acid, polymerized, and its ethyl and methyl esters	None
Acrylic acid-sodium acrylate-sodium-2- methylpropanesulfonate copolymer, min- imum average molecular weight (in amu), 4,500	97953–25–8
Acrylic acid-stearyl methacrylate copolymer, minimum number average molecular weight (in amu), 2,500	27756–15–6
Acrylic acid, styrene, $\alpha$ -methyl styrene copolymer, ammonium salt, minimum number average molecular weight (in amu), 1,250	89678–90–0
Acrylic acid terpolymer, partial sodium salt, minimum number average molecular weight (in amu), 2,400	151006–66–5

<u> </u>	
Polymer	CAS No.
Acrylic polymers composed of one or more of the following monomers: Acrylic acid, methyl acrylate, ethyl acrylate, butyl acrylate, hydroxybutyl acrylate, hydroxybutyl acrylate, carboxyethyl acrylate, hydroxybutyl acrylate, ethyl methacrylate, card, methyl methacrylate, ethyl methacrylate, butyl methacrylate, isobutyl methacrylate, hydroxypthyl methacrylate, hydroxybutyl methacrylate, hydroxybutyl methacrylate, with none and/or one or more of the following monomers: Acrylamide, N-methyl acrylamide, N,N-dimethyl acrylamide, and steanyl maleic anhydride, maleic acid, monoethyl maleate, diethyl maleate, and their corresponding sodium, potassium, ammonium, isopropylamine, triethylamine, monoethanolamine, and/or triethanolamine salts; the resulting polymer having a minimum number average molecular weight (in amu), 1,200	None
Acrylonitrile-butadiene copolymer conforming to 21 CFR 180.22, minimum average molecular weight (in amu), 1,000.	9003–18–3
Acrylonitrile-styrene-hydroxypropyl methacry- late copolymer, minimum number average molecular weight (in amu), 447,000	None
$\alpha\text{-alkyl}$ $(C_{12}\text{-}C_{15})$ - $\omega\text{-}$ hydroxypoly (oxypropylene) poly (oxypropylene) copolymers (where the poly(oxypropylene) content is 3–60 moles and the poly(oxyethylene) content is 5–80 moles), the resulting ethoxylated propoxylated $(C_{12}C_{15})$ alcohols having a minimum molecular weight (in amu), 1,500	68551–13–3
Alkyl ( $C_{12}$ – $C_{20}$ ) methacrylate-methacrylic acid copolymer, minimum molecular weight (in amu), 11,900	None
1,3 Benzene dicarboxylic acid, 5-sulfo-, 1,3- dimethyl ester, sodium salt, polymer with 1,3-benzene dicarboxylic acid, 1,4-benzene dicarboxylic acid, dimethyl 1,4-benzene dicarboxylate and 1,2-ethanediol, minimum number average molecular weight (in amu), 2,580	212842-88-1
3,5-Bis(6-isocyanatohexyl)-2H-1,3,5- oxadiazine-2,4,6-(3H,5H)-trione, polymer with diethylenetriamine, minimum number average molecular weight (in amu), 1,000,000	87823–33–4
Butadiene-styrene copolymer	None
1,4-Butanediol-methylenebis(4- phenylisocyanate)-poly(tetramethylene gly- col) copolymer, minimum molecular weight (in amu) 158,000	9018 046
Butene, homopolymer minimum number average molecular weight (in amu), 1,330	9003–29–6
Butenedioic acid (Z)-, polymer with ethenol and ethenyl acetate, sodium salt, minimum number average molecular weight (in amu), 75 000.	139871-83-3

## **Environmental Protection Agency**

Polymer	CAS No.
Butyl acrylate-vinyl acetate-acrylic acid co- polymer, minimum number average molec- ular weight (in amu), 18,000	65405–40–5
$\alpha\textsc{-Butyl-}\omega\textsc{-hydroxypoly(oxypropylene)}$ block polymer with poly(oxyethylene); molecular weight (in amu), 2,400–3,500	None
Castor oil, polyoxyethylated; the poly(oxyethylene) content averages 5–54 moles	None
Chlorinated polyethylene	64754-90-1
Cross-linked nylon-type polymer formed by the reaction of a mixture of sebacoyl chloride and polymethylene polyphenylisocycanate with a mixture of ethylenediamine and diethylenetriamine	None
Cross-linked polyurea-type encapsulating polymer	None
Dimethylpolysiloxane minimum number average molecular weight (in amu), 6,800	63148-62-9
Dimethyl silicone polymer with silica, min- imum number average molecular weight (in amu), 1,100,000	67762–90–7
Docosyl methacrylate-acrylic acid copolymer, or docosyl methacrylate-octadecyl methacrylate-acrylic acid copolymer, minimum number average molecular weight (in amu), 3,000	None
1,12-Dodecanediol dimethacrylate polymer, minimum molecular weight (in amu), 100,000	None
<ol> <li>2-Ethanediamine, polymer with methyl oxirane and oxirane, minimum number av- erage molecular weight (in amu), 1,100</li> </ol>	26316–40–5
Ethylene glycol dimethyacrylate-lauryl meth- acrylate copolymer, minimum molecular weight (in amu), 100,000	None
Ethylene glycol dimethacrylate polymer, minimum molecular weight (in amu), 100,000	None
Formaldehyde, polymer with $\alpha$ -[bis(1-phenylethyl)phenyl]- $\alpha$ -hydroxypoly(oxy-1,2-ethanediyl), number average molecular weight (in amu), 1,803	157291–93–5
Fumaric acid-isophthalic acid-styrene-ethylene/propylene glycol copolymer, minimum average molecular weight (in amu), 1 x 1018	None
Hexadecyl acrylate-acrylic acid copolymer, hexadecyl acrylate-butyl acrylate-acrylic acid copolymer, or hexadecyl acrylate- dodecyl acrylate-acrylic acid copolymer, minimum number average molecular weight (in amu), 3,000	None
Hexamethyl disilizane, reaction product with silica, minimum number average molecular weight (in amu), 645,000	68909-20-6
1,6-Hexanediol dimethyacrylate polymer, minimum molecular weight (in amu), 100,000	None

Polymer	CAS No.
α-Hydro-ω-hydroxy-poly(oxyethylene) C8 alkyl ether citrates, poly(oxyethylene) content is 4–12 moles, minimum number average mo- lecular weight (in amu) 1,300.	330977-00-9
α-Hydro-ω-hydroxy-poly(oxyethylene) C10– C16-alkyl ether citrates, poly(oxyethylene) content is 4–12 moles, minimum number average molecular weight (in amu) 1,100.	330985-58-5
α-Hydro-ω-hydroxy-poly(oxyethylene) C16–C18-alkyl ether citrates, poly(oxyethylene) content is 4–12 moles, minimum number average molecular weight (in amu) 1,300.	330985–61–0
α-Hydro-ω-hydroxypoly(oxyethylene), minimum molecular weight (in amu), 100,000	None
α-Hydro-ω-hydroxypoly(oxyethylene)poly (oxypropylene) poly(oxyethylene) block co- polymer; the minimum poly(oxypropylene) content is 27 moles and the minimum mo- lecular weight (in amu) is 1,900	None
α-Hydro- $ω$ -hydroxypoly(oxypropylene); minimum molecular weight (in amu) 2,000	None
12-Hydroxystearic acid-polyethylene glycol copolymer, minimum number average mo- lecular weight (in amu), 3,690	70142–34–6
Lauryl methacrylate-1,6-hexanediol dimethacrylate copolymer, minimum molecular weight (in amu), 100,000	None
Maleic acid-butadiene copolymer	None
Maleic acid monobutyl ester-vinyl methyl ether copolymer, minimum average molecular weight (in amu), 52,000	25119–68–0
Maleic acid monoethyl ester-vinyl methyl ether copolymer, minimum average molecular weight (in amu), 46,000	25087–06–3
Maleic acid monoisopropyl ester-vinyl methyl ether copolymer, minimum average molecular weight (in amu), 49,000	31307–95–6
Maleic anhydride-diisobutylene copolymer, so- dium salt, minimum number average molec- ular weight (in amu) 5,0007–18,000	37199–81–8
Maleic anhydride-methylstyrene copolymer sodium salt, minimum number average mo- lecular weight (in amu), 15,000	60092–15–1
Maleic anhydride-methyl vinyl ether, copoly- mer, average molecular weight (in amu), 250,000	None
Methacrylic acid-methyl methacrylate-poly- ethylene glycol methyl ether methacrylate copolymer, minimum number averge mo- lecular weight (in amu), 3,700	100934-04-1
Methacrylic copolymer, minimum number average molecular weight (in amu), 15,000	63150-03-8
Methyl methacrylate-methacrylic acid- monomethoxypolyethylene glycol methacry- late copolymer,) minimum number average molecular weight (in amu), 2,730	119724–54–8

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Polymer	CAS No.	Polymer	CAS No.
Methyl methacrylate-2-sulfoethyl methacry- late-dimethylaminoethylmethacrylate- glycidyl methacrylate-styrene-2-ethylhexyl acrylate graft copolymer, minimum average molecular weight (in amu), 9,600	None	Polyethylene glycol-polyisobutenyl anhydride- tall oil fatty acid copolymer, minimum num- ber average molecular weight (in amu), 2,960	68650–28–2
Methyl vinyl ether-maleic acid copolymer), minimum number average molecular weight	25153-40-6	Polyethylene, oxidized, minimum number average molecular weight (in amu), 1,200	None
(in amu), 75,000  Methyl vinyl ether-maleic acid copolymer, calcium sodium salt, minimum number average molecular weight (in amu), 900,000	62386–95–2	Polymethylene polyphenylisocyanate, polymer No with ethylene diamine, diethylene triamine and sebacoyl chloride, cross-linked; minimum number average molecular weight (in amu), 100,000	
Monophosphate ester of the block copolymer α-hydro-α-hydroxypoly(oxyethylene) poly(oxypropylene) poly(oxyethylene); the poly(oxypropylene) content averages 37–41 moles, average molecular weight (in amu), 8,000	None	Polyoxyethylated primary amine (C <sub>14</sub> –C <sub>18</sub> ); the fatty amine is derived from an animal source and contains 3% water; the poly(oxyethylene) content averages 20 moles	None
α-(p-Nonylphenyl-ω- hydroxypoly(oxypropylene) block polymer with poly(oxyethylene); polyoxypropylene content of 10–60 moles; polyoxyethylene content of 10–80 moles; molecular weight (in amu), 1,200–7,100.	None	Polyoxyethylated sorbitol fatty acid esters; the polyoxyethylated sorbitol solution containing 15% water is reacted with fatty acids limited to C <sub>12</sub> , C <sub>14</sub> , C <sub>16</sub> , and C <sub>18</sub> , containing minor amounts of associated fatty acids; the poly(oxyethylene) content averages 30 moles.	None
$\alpha$ -( $\rho$ -Nonylphenyl)poly(oxypropylene) block polymer with poly(oxyethylene); poly oxyethylene content 30 to 90 moles; molecular weight (in amu) averages 3,000	None	Polyoxyethylated sorbitol fatty acid esters; the sorbitol solution containing up to 15% water is reacted with 20–50 moles of ethylene oxide and aliphatic alkanoic and/or alkenoic fatty acids C <sub>8</sub> through C <sub>22</sub> with minor amounts of associated fatty acids; the resulting polyoxyethylene sorbitol ester having a minimum molecular weight (in amu), 1,300	
Octadecanoic acid, 12-hydroxy-, homopolymer, octadecanoate minimum number average molecular weight (in amu), 1,370	58128–22–6),		
α-cis-9-Octadecenyl-α- hydroxypoly(oxyethylene); the octadecenyl group is derived from oleyl alcohol and the poly(oxyethylene) content averages 20 moles	None	$\begin{array}{lll} \mbox{Poly(oxyethylene/oxypropylene)} & \mbox{monoalkyl} \\ \mbox{($C_6$-$C_{10}$)} & \mbox{ether sodium fumarate adduct,} \\ \mbox{minimum number average molecular weight} \\ \mbox{(in amu), 1,900} \end{array}$	102900-02-7
Octadecyl acrylate-acrylic acid copolymer, octadecyl acrylate-dodecyl acrylate-acrylic	None	Polyoxymethylene copolymer, minimum num- ber average molecular weight (in amu), 15,000	None
acid copolymer, octadecyl methacrylate- butyl acrylate-acrylic acid copolymer, octa- decyl methacrylate-hexyl acrylate-acrylic acid copolymer, octadecyl methacrylate-		Poly(oxypropylene) block polymer with poly(oxyethylene), molecular weight (in amu), 1,800–16,000	None
dodecyl acrylate-acrylic acid copolymer, or octadecyl methacrylate-dodecyl methacry- late-acrylic acid copolymer, minimum num- ber average molecular weight (in amu)		Poly(phenylhexylurea), cross-linked, minimum average molecular weight (in amu), 36,000	None
3,000		Polypropylene	9003-07-0
Oleic acid diester of α-hydro-ω- hydroxypoly(oxyethylene); the	None	Polystyrene, minimum number average molecular weight (in amu), 50,000	9003–53–6
poly(oxyethylene), average molecular weight (in amu), 2,300		Polytetrafluoroethylene	9002-84-0
Oxirane, methyl-, polymer with oxirane, mono[2-(2-butoxyethoxy) ethyl] ether, minimum number average molecular weight (in amu), 2,500	85637–75–8	Polyvinyl acetate, copolymer with maleic an- hydride, partially hydrolyzed, sodium salt, minimum number average molecular weight (in amu), 53,000	None
Polyamide polymer derived from sebacic acid, vegetable oil acids with or without dimerization, terephthalic acid and/or ethyl- enediamine	None	Polyvinylpyrrolidone butylated polymer, minimum number average molecular weight (in amu), 9,500	26160-96-3
	<u> </u>	Polyvinyl acetate, minimum molecular weight (in amu), 2,000	None

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Polyvinyl acetatepolyvinyl alcohol copolymer, minimum number average molecular weight (in amu), 50,000  Polyvinyl alcohol  Polyvinyl chloride  Polyvinyl chloride, minimum number average molecular weight (in amu), 29,000  Poly(vinylpyrrolidone), minimum number average molecular weight (in amu), 4,000  Poly(vinylpyrrolidone-1-eicosene), minimum average molecular weight (in amu), 3,000  Poly(vinylpyrrolidone-1-hexadecene), minimum average molecular weight (in amu), 4,700  Poly(vinylpyrrolidone-1-hexadecene), minimum average molecular weight (in amu), 4,700  2-Propene-1-sulfonic acid sodium salt, polymer with ethenol and ethenyl acetate, number average molecular weight (in amu), 6,000–12,000  2-Propenoic acid, polymer with 2-propenamide, sodium salt, minimum number average molecular weight (in amu), 18,000  2-Propenoic acid, sodium salt, polymer with 2-propenamide, minimum number average molecular weight (in amu), 18,000  2-Propenoic acid, sodium salt, polymer with 2-propenamide, minimum number average molecular weight (in amu), 18,000  Silane, dichloromethyl- reaction product with silica minimum number average molecular weight (in amu), 3,340,000  Sodium polyflavinoidsulfonate, consisting chiefly of the copolymer of catechin and leucocyanidin  Stearyl methacrylate-1,6-hexanediol dimethacrylate copolymer, minimum molecular weight (in amu), 10,000  Styrene, copolymers with acrylic acid and/or methacrylic acid, with none and/or one or more of the following monomers: Acrylamiopropyl methacrylate, and its sodium, potassium, ammonium, monoethanolamine, and triethanolamine salts; the resulting polymer having a minimum number average molecular weight (in amu), 1,200  Styrene, 2-ethylhexyl acrylate, butyl acrylate copolymer, minimum number average molecular weight (in amu), 4,200  Styrene, 2-ethylhexyl acrylate-glycidyl methacrylate-2-acrylamido-2-methylpropanesulfonic acid graft copolymer, minimum number average molecular weight (in amu), 12,500	Polymer	CAS No.
Polyvinyl alcohol 9002–89–5 Polyvinyl chloride None Polyvinyl chloride, minimum number average molecular weight (in amu), 29,000 Poly(vinylpyrrolidone), minimum number average molecular weight (in amu), 4,000 Poly(vinylpyrrolidone-1-eicosene), minimum average molecular weight (in amu), 3,000 Poly(vinylpyrrolidone-1-hexadecene), minimum average molecular weight (in amu), 4,700 Poly(vinylpyrrolidone-1-hexadecene), minimum number average molecular weight (in amu), 4,700 Poly(vinylpyrrolidone-1-hexadecene), minimum number average molecular weight (in amu), 18,000 Poly(vinylpyrrolidone-1-hexadecene), minimum number average molecular weight (in amu), 18,000 Poly(vinylpyrrolidone-1-hexadecene), minimum number average molecular weight (in amu), 18,000 Poly(vinylpyrrolidone-1-hexadecene), minimum number average molecular weight (in amu), 18,000 Poly(vinylpyrrolidone-1-hexadecene), minimum number average molecular weight (in amu), 18,000 Poly(vinylpyrrolidone-1-hexadecene), minimum number average molecular weight (in amu), 10,000 Sodium polyflavinoidsulfonate, consisting chiefly of the copolymer, minimum molecular weight (in amu), 100,000 Sodium polyflavinoidsulfonate, consisting chiefly of the copolymer, minimum molecular weight (in amu), 100,000 Sodium polyflavinoidsulfonate, consisting chiefly of the copolymer, minimum number average molecular weight (in amu), 100,000 Sodium polyflavinoidsulfone acid, 3-sulfopropyl acrylate, hydroxypropyl methacrylate, and fits sodium, potassium, ammonium, monoethanolamine, and triethanolamine salts; the resulting polymer having a minimum number average molecular weight (in amu), 4,200 Sodium polyflavinoidsulfonic acid graft copolymer, minimum num	Polyvinyl acetatepolyvinyl alcohol copoly-	
Polyvinyl chloride Polyvinyl chloride, minimum number average molecular weight (in amu), 29,000 Poly(vinylpyrrolidone), minimum number average molecular weight (in amu), 4,000 Poly(vinylpyrrolidone-1-eicosene), minimum average molecular weight (in amu), 3,000 Poly(vinylpyrrolidone-1-hexadecene), minimum average molecular weight (in amu), 4,700 2-Propene-1-sulfonic acid sodium salt, polymer with ethenol and ethenyl acetate, number average molecular weight (in amu), 6,000–12,000 2-Propenic acid, polymer with 2-propenamide, sodium salt, minimum number average molecular weight (in amu), 18,000 2-Propenoic acid, sodium salt, polymer with 2-propenamide, sodium salt, polymer with 2-propenamide, minimum number average molecular weight (in amu), 18,000  2-Propenoic acid, sodium salt, polymer with 2-propenamide, minimum number average molecular weight (in amu), 3,340,000  Soliane, dichloromethyl- reaction product with silica minimum number average molecular weight (in amu), 3,340,000  Sodium polyflavinoidsulfonate, consisting chiefly of the copolymer of catechin and leucocyanidin  Stearyl methacrylate-1,6-hexanediol dimethacrylate copolymer, minimum molecular weight (in amu), 100,000  Styrene, copolymers with acrylic acid and/or more of the following monomers: Acrylamidopropyl methyl sulfonic acid, methallyl sulfonic acid, 3-sulfopropyl methacrylate, hydroxypropyl and methacrylate, hydroxypropyl methacrylate, hydroxypropyl methacrylate, hydroxypropyl methacrylate, hydroxypropyl methacrylate, and its sodium, potassium, ammonium, monoethanolamine, and triethanolamine salts; the resulting polymer having a minimum number average molecular weight (in amu), 1,200  Styrene, 2-ethylhexyl acrylate, butyl acrylate copolymer, minimum number average molecular weight (in amu), 4,200  Styrene-2-ethylhexyl acrylate-glycidyl methacrylate-2-acrylamido-2-methyl-poranesulfonic acid graft copolymer, minimum number average molecular weight (in amu), 12,500	weight (in amu), 50,000	
Polyvinyl chloride, minimum number average molecular weight (in amu), 29,000  Poly(vinylpyrrolidone), minimum number average molecular weight (in amu), 4,000  Poly(vinylpyrrolidone-1-eicosene), minimum average molecular weight (in amu), 3,000  Poly(vinylpyrrolidone-1-hexadecene), minimum average molecular weight (in amu), 4,700  Poly(vinylpyrrolidone-1-hexadecene), minimum average molecular weight (in amu), 4,700  2-Propene-1-sulfonic acid sodium salt, polymer with ethenol and ethenyl acetate, number average molecular weight (in amu), 6,000–12,000  2-Propenoic acid, polymer with 2-propenamide, sodium salt, minimum number average molecular weight (in amu), 18,000  2-Propenoic acid, sodium salt, polymer with 2-propenamide, minimum number average molecular weight (in amu), 18,000  3-Propenoic acid, sodium salt, polymer with 2-propenamide, minimum number average molecular weight (in amu), 3,340,000  3-Silane, dichloromethyl- reaction product with silica minimum number average molecular weight (in amu), 3,340,000  Sodium polyflavinoidsulfonate, consisting chiefly of the copolymer of catechin and leucocyanidin  Stearyl methacrylate-1,6-hexanediol dimethacrylate copolymer, minimum molecular weight (in amu), 100,000  Styrene, copolymers with acrylic acid and/or methacrylic acid, with none and/or one or more of the following monomers: Acrylamidopropyl methyl sulfonic acid, methallyl sulfonic acid, 3-sulfopropyl acrylate, hydroxypropyl acrylate, hydroxypropyl methacrylate, hydroxypropyl methacrylate, hydroxypropyl methacrylate, hydroxypropyl methacrylate, hydroxypropyl acrylate, and triethanolamine salts; the resulting polymer having a minimum number average molecular weight (in amu), 1,200  Styrene, 2-ethylhexyl acrylate, butyl acrylate acopolymer, minimum number average molecular weight (in amu), 12,500  Styrene-2-entylhexyl acrylate-glycidyl methacrylate-2-acrylamido-2-methyl-propanesulfonic acid graft copolymer, minimum number average molecular weight (in amu), 12,500	Polyvinyl alcohol	9002–89–5
Molecular weight (in amu), 29,000  Poly(vinylpyrrolidone), minimum number average molecular weight (in amu), 4,000  Poly(vinylpyrrolidone-1-eicosene), minimum average molecular weight (in amu), 3,000  Poly(vinylpyrrolidone-1-hexadecene), minimum average molecular weight (in amu), 4,700  2-Propene-1-sulfonic acid sodium salt, polymer with ethenol and ethenyl acetate, number average molecular weight (in amu), 6,000–12,000  2-Propenoic acid, polymer with 2-propenamide, sodium salt, minimum number average molecular weight (in amu), 18,000  2-Propenoic acid, sodium salt, polymer with 2-propenamide, minimum number average molecular weight (in amu), 18,000  3-Propenoic acid, sodium salt, polymer with 2-propenamide, inimum number average molecular weight (in amu), 18,000  Silane, dichloromethyl- reaction product with silica minimum number average molecular weight (in amu), 3,340,000  Sodium polyflavinoidsulfonate, consisting chiefly of the copolymer of catechin and leucocyanidin  Stearyl methacrylate-1,6-hexanediol dimethacrylate copolymer, minimum molecular weight (in amu), 100,000  Styrene, copolymers with acrylic acid and/or methacrylic acid, with none and/or one or more of the following monomers: Acrylamidopropyl methacrylate, hydroxypropyl methacrylate, hydroxypropyl methacrylate, hydroxypropyl methacrylate, hydroxypropyl methacrylate, hydroxypropyl methacrylate, and/or hydroxypropyl acrylate, and triethanolamine salts; the resulting polymer having a minimum number average molecular weight (in amu), 1,200  Styrene, 2-ethylhexyl acrylate, butyl acrylate copolymer, minimum number average molecular weight (in amu), 4,200  Styrene-2-entylhexyl acrylate-glycidyl methacrylate-2-acrylamido-2-methylpropanesulfonic acid graft copolymer, minimum number average molecular weight (in amu), 12,500	Polyvinyl chloride	None
age molecular weight (in amu), 4,000  Poly(vinylpyrrolidone-1-eicosene), minimum average molecular weight (in amu), 3,000  Poly(vinylpyrrolidone-1-hexadecene), minimum average molecular weight (in amu), 4,700  2-Propene-1-sulfonic acid sodium salt, polymer with ethenol and ethenyl acetate, number average molecular weight (in amu), 6,000–12,000  2-Propenoic acid, polymer with 2-propenamide, sodium salt, minimum number average molecular weight (in amu), 18,000  2-Propenoic acid, sodium salt, polymer with 2-propenamide, minimum number average molecular weight (in amu), 18,000  3-Propenoic acid, sodium salt, polymer with 2-propenamide, minimum number average molecular weight (in amu), 18,000  Silane, dichloromethyl- reaction product with silica minimum number average molecular weight (in amu), 3,340,000  Sodium polyflavinoidsulfonate, consisting chiefly of the copolymer of catechin and leucocyanidin  Stearyl methacrylate-1,6-hexanediol dimethacrylate copolymer, minimum molecular weight (in amu), 100,000  Styrene, copolymers with acrylic acid and/or methacrylic acid, with none and/or one or more of the following monomers: Acrylamidopropyl methyl sulfonic acid, methallyl sulfonic acid, 3-sulfopropyl acrylate, 3-sulfopropyl methacrylate, hydroxypropyl methacrylate, hydroxypropyl methacrylate, hydroxypropyl methacrylate, and/or hydroxypropyl methacrylate, and/or hydroxyethyl acrylate; and its sodium, potassium, ammonium, monoethanolamine, and triethanolamine salts; the resulting polymer having a minimum number average molecular weight (in amu), 1,200  Styrene, 2-ethylhexyl acrylate, butyl acrylate copolymer, minimum number average molecular weight (in amu), 4,200  Styrene-2-entylmico-2-methylpropanesulfonic acid graft copolymer, minimum number average molecular weight (in amu), 12,500	Polyvinyl chloride, minimum number average molecular weight (in amu), 29,000	9002–86–2
average molecular weight (in amu), 3,000  Poly(vinylpyrrolidone-1-hexadecene), minimum average molecular weight (in amu), 4,700  2-Propene-1-sulfonic acid sodium salt, polymer with ethenol and ethenyl acetate, number average molecular weight (in amu), 6,000–12,000  2-Propenoic acid, polymer with 2-propenamide, sodium salt, minimum number average molecular weight (in amu), 18,000  2-Propenoic acid, sodium salt, polymer with 2-propenamide, minimum number average molecular weight (in amu), 18,000  3-Propenoic acid, sodium salt, polymer with 2-propenamide, minimum number average molecular weight (in amu), 18,000  Silane, dichloromethyl- reaction product with silica minimum number average molecular weight (in amu), 3,340,000  Sodium polyflavinoidsulfonate, consisting chiefly of the copolymer of catechin and leucocyanidin  Stearyl methacrylate-1,6-hexanediol dimethacrylate copolymer, minimum molecular weight (in amu), 100,000  Styrene, copolymers with acrylic acid and/or methacrylic acid, with none and/or one or more of the following monomers: Acrylamidopropyl methyl sulfonic acid, methallyl sulfonic acid, 3-sulfopropyl acrylate, 3-sulfopropyl methacrylate, hydroxypropyl methacrylate, hydroxypropyl methacrylate, hydroxypropyl methacrylate, and/or hydroxypropyl methacrylate, and/or hydroxypropyl methacrylate, and/or hydroxypropyl methacrylate, and/or hydroxypropyl acrylate; and its sodium, potassium, ammonium, monoethanolamine, and triethanolamine salts; the resulting polymer having a minimum number average molecular weight (in amu), 1,200  Styrene, 2-ethylhexyl acrylate, butyl acrylate copolymer, minimum number average molecular weight (in amu), 4,200  Styrene-2-entylmico-2-methylpropanesulfonic acid graft copolymer, minimum number average molecular weight (in amu), 12,500	Poly(vinylpyrrolidone), minimum number average molecular weight (in amu), 4,000	9003–39–8
imum average molecular weight (in amu), 4,700  2-Propene-1-sulfonic acid sodium salt, polymer with ethenol and ethenyl acetate, number average molecular weight (in amu) 6,000–12,000  2-Propenoic acid, polymer with 2-propenamide, sodium salt, minimum number average molecular weight (in amu), 18,000  2-Propenoic acid, sodium salt, polymer with 2-propenamide, minimum number average molecular weight (in amu), 18,000  Silane, dichloromethyl- reaction product with silica minimum number average molecular weight (in amu), 3,340,000  Sodium polyflavinoidsulfonate, consisting chiefly of the copolymer of catechin and leucocyanidin  Stearyl methacrylate-1,6-hexanediol dimethacrylate copolymer, minimum molecular weight (in amu), 100,000  Styrene, copolymers with acrylic acid and/or methacrylic acid, with none and/or one or more of the following monomers: Acrylamidopropyl methyl sulfonic acid, methallyl sulfonic acid, 3-sulfopropyl acrylate, 3-sulfopropyl methacrylate, hydroxypropyl acrylate, and triethanolamine salts; the resulting polymer having a minimum number average molecular weight (in amu), 1,200  Styrene, 2-ethylhexyl acrylate, butyl acrylate copolymer, minimum number average molecular weight (in amu), 4,200  Styrene-2-ethylhexyl acrylate-glycidyl methacrylate-2-acrylamido-2-methylpropanesulfonic acid graft copolymer, minimum number average molecular weight (in amu), 12,500		28211–18–9
mer with ethenol and ethenyl acetate, number average molecular weight (in amu) 6,000–12,000  2-Propenoic acid, polymer with 2-propenamide, sodium salt, minimum number average molecular weight (in amu), 18,000  2-Propenoic acid, sodium salt, polymer with 2-propenamide, minimum number average molecular weight (in amu), 18,000  3-Propenoic acid, sodium salt, polymer with 2-propenamide, minimum number average molecular weight (in amu), 18,000  Silane, dichloromethyl- reaction product with silica minimum number average molecular weight (in amu), 3,340,000  Sodium polyflavinoidsulfonate, consisting chiefly of the copolymer of catechin and leucocyanidin  Stearyl methacrylate-1,6-hexanediol dimethacrylate copolymer, minimum molecular weight (in amu), 100,000  Styrene, copolymers with acrylic acid and/or methacrylic acid, with none and/or one or more of the following monomers: Acrylamidopropyl methyl sulfonic acid, methallyl sulfonic acid, 3-sulfopropyl acrylate, ydroxyetyl methacrylate, hydroxypropyl methacrylate, hydroxypropyl methacrylate, hydroxypropyl acrylate, and triethanolamine salts; the resulting polymer having a minimum number average molecular weight (in amu), 1,200  Styrene, 2-ethylhexyl acrylate, butyl acrylate copolymer, minimum number average molecular weight (in amu), 4,200  Styrene-2-ethylhexyl acrylate-glycidyl methacrylate-2-acrylamido-2-methylpropanesulfonic acid graft copolymer, minimum number average molecular weight (in amu), 12,500	imum average molecular weight (in amu),	63231–81–2
propenamide, sodium salt, minimum number average molecular weight (in amu), 18,000  2-Propenoic acid, sodium salt, polymer with 2-propenamide, minimum number average molecular weight (in amu), 18,000  Silane, dichloromethyl- reaction product with silica minimum number average molecular weight (in amu), 3,340,000  Sodium polyflavinoidsulfonate, consisting chiefly of the copolymer of catechin and leucocyanidin  Stearyl methacrylate-1,6-hexanediol dimethacrylate copolymer, minimum molecular weight (in amu), 100,000  Styrene, copolymers with acrylic acid and/or methacrylic acid, with none and/or one or more of the following monomers: Acrylamidopropyl methyl sulfonic acid, methallyl sulfonic acid, 3-sulfopropyl acrylate, 3-sulfopropyl methacrylate, hydroxyptropyl acrylate, hydroxyptryl methacrylate, hydroxyptryl methacrylate, and/or hydroxyethyl acrylate; and its sodium, potassium, ammonium, monoethanolamine, and triethanolamine salts; the resulting polymer having a minimum number average molecular weight (in amu), 1,200  Styrene, 2-ethylhexyl acrylate, butyl acrylate copolymer, minimum number average molecular weight (in amu), 4,200  Styrene-2-ethylhexyl acrylate-glycidyl methacrylate-2-acrylamido-2-methylpropanesulfonic acid graft copolymer, minimum number average molecular weight (in amu), 12,500	ber average molecular weight (in amu)	None
2-propenamide, minimum number average molecular weight (in amu), 18,000  Silane, dichloromethyl- reaction product with silica minimum number average molecular weight (in amu), 3,340,000  Sodium polyflavinoidsulfonate, consisting chiefly of the copolymer of catechin and leucocyanidin  Stearyl methacrylate-1,6-hexanediol dimethacrylate copolymer, minimum molecular weight (in amu), 100,000  Styrene, copolymers with acrylic acid and/or methacrylic acid, with none and/or one or more of the following monomers: Acrylamidopropyl methyl sulfonic acid, methallyl sulfonic acid, 3-sulfopropyl acrylate, 3-sulfopropyl methacrylate, hydroxypropyl acrylate, hydroxypropyl methacrylate, hydroxypropyl methacrylate, and/or hydroxyethyl acrylate; and its sodium, potassium, ammonium, monoethanolamine, and triethanolamine salts; the resulting polymer having a minimum number average molecular weight (in amu), 1,200  Styrene, 2-ethylhexyl acrylate, butyl acrylate copolymer, minimum number average molecular weight (in amu), 4,200  Styrene-2-ethylhexyl acrylate-glycidyl methacrylate-2-acrylamido-2-methylpropanesulfonic acid graft copolymer, minimum number average molecular weight (in amu), 12,500	propenamide, sodium salt, minimum num- ber average molecular weight (in amu),	25085–02–3
silica minimum number average molecular weight (in amu), 3,340,000  Sodium polyflavinoidsulfonate, consisting chiefly of the copolymer of catechin and leucocyanidin  Stearyl methacrylate-1,6-hexanediol dimethacrylate copolymer, minimum molecular weight (in amu), 100,000  Styrene, copolymers with acrylic acid and/or methacrylic acid, with none and/or one or more of the following monomers: Acrylamidopropyl methyl sulfonic acid, methallyl sulfonic acid, 3-sulfopropyl acrylate, 3-sulfopropyl methacrylate, hydroxypropyl methacrylate, hydroxypropyl methacrylate, hydroxypthyl methacrylate, and/or hydroxyethyl acrylate; and its sodium, potassium, ammonium, monoethanolamine, and triethanolamine salts; the resulting polymer having a minimum number average molecular weight (in amu), 1,200  Styrene, 2-ethylhexyl acrylate, butyl acrylate copolymer, minimum number average molecular weight (in amu), 4,200  Styrene-2-ethylhexyl acrylate-glycidyl methacrylate-2-acrylamido-2-methylpropanesulfonic acid graft copolymer, minimum number average molecular weight (in amu), 12,500		25987–30–8
chiefly of the copolymer of catechin and leucocyanidin  Stearyl methacrylate-1,6-hexanediol dimethacrylate copolymer, minimum molecular weight (in amu), 100,000  Styrene, copolymers with acrylic acid and/or methacrylic acid, with none and/or one or more of the following monomers: Acrylamidopropyl methyl sulfonic acid, methally sulfonic acid, 3-sulfopropyl acrylate, 3-sulfopropyl methacrylate, hydroxypropyl acrylate, hydroxypropyl methacrylate, hydroxypropyl acrylate, hydroxypropyl acrylate, and its sodium, potassium, ammonium, monoethanolamine, and triethanolamine salts; the resulting polymer having a minimum number average molecular weight (in amu), 1,200  Styrene, 2-ethylhexyl acrylate, butyl acrylate copolymer, minimum number average molecular weight (in amu), 4,200  Styrene-2-ethylhexyl acrylate-glycidyl methacrylate-2-acrylamido-2-methylpropanesulfonic acid graft copolymer, minimum number average molecular weight (in amu), 12,500		68611–44–9
dimethacrylate copolymer, minimum molecular weight (in amu), 100,000  Styrene, copolymers with acrylic acid and/or methacrylic acid, with none and/or one or more of the following monomers: Acrylamidopropyl methyl sulfonic acid, methallyl sulfonic acid, 3-sulfopropyl acrylate, 3-sulfopropyl methacrylate, hydroxypropyl methacrylate, hydroxypropyl acrylate, hydroxyethyl methacrylate, and/or hydroxyethyl acrylate; and its sodium, potassium, ammonium, monoethanolamine, and triethanolamine salts; the resulting polymer having a minimum number average molecular weight (in amu), 1,200  Styrene, 2-ethylhexyl acrylate, butyl acrylate copolymer, minimum number average molecular weight (in amu), 4,200  Styrene-2-ethylhexyl acrylate-glycidyl methacrylate-2-acrylamido-2-methylpropanesulfonic acid graft copolymer, minimum number average molecular weight (in amu), 12,500	chiefly of the copolymer of catechin and	None
methacrylic acid, with none and/or one or more of the following monomers: Acrylamidopropyl methyl sulfonic acid, methallyl sulfonic acid, 3-sulfopropyl acrylate, 3-sulfopropyl methacrylate, hydroxypropyl methacrylate, hydroxypropyl methacrylate, and/or hydroxyethyl acrylate; and its sodium, potassium, ammonium, monoethanolamine, and triethanolamine salts; the resulting polymer having a minimum number average molecular weight (in amu), 1,200  Styrene, 2-ethylhexyl acrylate, butyl acrylate copolymer, minimum number average molecular weight (in amu), 4,200  Styrene-2-ethylhexyl acrylate-glycidyl methacrylate-2-acrylamido-2-methylpropanesulfonic acid graft copolymer, minimum number average molecular weight (in amu), 12,500	dimethacrylate copolymer, minimum molec-	None
copolymer, minimum number average mo- lecular weight (in amu), 4,200  Styrene-2-ethylhexyl acrylate-glycidyl meth- acrylate-2-acrylamido-2- methylpropanesulfonic acid graft copoly- mer, minimum number average molecular weight (in amu), 12,500	more of the following monomers: Acrylamidopropyl methyl sulfonic acid, methallyl sulfonic acid, 3-sulfopropyl acry- late, 3-sulfopropyl methacrylate, hydroxypropyl methacrylate, hydroxypropyl acrylate, hydroxyethyl methacrylate, and/or hydroxyethyl acrylate; and its sodium, po- tassium, ammonium, monoethanolamine, and triethanolamine salts; the resulting polymer having a minimum number aver-	None
acrylate-2-acrylamido-2- methylpropanesulfonic acid graft copoly- mer, minimum number average molecular weight (in amu), 12,500		30795–23–4
	acrylate-2-acrylamido-2- methylpropanesulfonic acid graft copoly- mer, minimum number average molecular	None
	Styrene-maleic anhydride copolymer	None

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Polymer	CAS No.
Styrene-maleic anhydride copolymer, ester derivative	None
Tetradecyl acrylate-acrylic acid copolymer, minimum number average molecular weight (in amu), 3,000	None
Tetraethoxysilane, polymer with hexamethyldisiloxane, minimum number average molecular weight (in amu), 6,500	104133-09-7
$\alpha\text{-}[p\text{-}(1,1,3,3\text{-}Tetramethylbutyl)phenyl]}$ poly(oxypropylene) block polymer with poly(oxyethylene); the poly(oxypropylene) content averages 25 moles, the poly(oxyethylene) content averages 40 moles, the molecular weight (in amu) averages 3,400	None
α-[2,4,6-Tris[1-(phenyl)ethyl]phenyl]-ω-hydroxy poly(oxyethylene) poly(oxypropylene) co-polymer, the poly(oxypropylene) content averages 2–8 moles, the poly(oxyethylene) content averages 16–30moles, average molecular weight (in amu), 1,500	None
Urea-formaldehyde copolymer, minimum average molecular weight (in amu), 30,000	9011–05–6
Vinyl acetate-allyl acetate-monomethyl male- ate copolymer, minimum average molecular weight (in amu), 20,000	None
Vinyl acetate-ethylene copolymer, minimum number average molecular weight (in amu), 69,000	24937–78–8
Vinyl acetate polymer with none and/or one or more of the following monomers: Ethylene, propylene, N-methyl acrylamide, acrylamide, monoethyl maleate, diethyl maleate, monooctyl maleate, dioctyl maleate, maleic anhydride, maleic acid, octyl acrylate, butyl acrylate, ethyl acrylate, methyl acrylate, acrylic acid, octyl methacrylate, butyl methacrylate, ethyl methacrylate, butyl methacrylate, methacrylic acid, carboxyethyl acrylate, and diallyl phthalate; and their corresponding sodium, potassium, ammonium, isopropylamine, monoethanolamine and/or triethanolamine salts; the resulting polymer having a minimum number average molecular weight (in amu), 1,200	None
Vinyl acetate-vinyl alcohol-alkyl lactone co- polymer, minimum number average molec- ular weight (in amu), 40,000; minimum vis- cosity of 18 centipoise	None
Vinyl alcohol-disodium itaconate copolymer, minimum average molecular weight (in amu), 50,290	None
Vinyl alcohol-vinyl acetate copolymer, benz- aldehyde-o-sodium sulfonate condensate, minimum number average molecular weight (in amu), 20,000	None

Polymer	CAS No.
Vinyl alcohol-vinyl acetate-monomethyl male- ate, sodium salt-maleic acid, disodium salt- γ-butyrolactone acetic acid, sodium salt co- polymer, minimum number average molec- ular weight (in amu), 20,000	None
Vinyl chloride-vinyl acetate copolymers	None
Vinyl pyrrolidone-acrylic acid copolymer, min- imum number average molecular weight (in amu), 6,000	28062-44-4
Vinyl pyrrolidone- dimethylaminoethylmethacrylate copolymer, minimum number average molecular weight (in amu), 20,000	30581-59-0
Vinyl pyrrolidone-styrene copolymer	25086-29-7

[67 FR 36528, May 24, 2002, as amended at 68 FR 8850, Feb. 26, 2003; 68 FR 10986, Mar. 7, 2003; 68 FR 15967, Apr. 2, 2003; 68 FR 23072, Apr. 30, 2003; 69 FR 4073, Jan. 28, 2004]

# § 180.1002 Allethrin (allyl homolog of cinerin I); exemption from the requirement of a tolerance.

The insecticide allethrin is exempted from the requirement of a tolerance for residues when used before harvest in the production of the following commodities:

#### COMMODITY

A 1	77 11 11
Apples	Kohlrabi
Artichokes	Leeks
(Jerusalem)	Lettuce
Beans	Mushrooms
Beets	Mustard greens
Beets, sugar	Onions
Broccoli	Parsley
Brussels sprouts	Parsnips
Cabbage	Peaches
Carrots	Pears
Cauliflower	Peppers
Celery	Potatoes
Chickory	Radishes
Chinese cabbage	Rutabagas
Citrus	Salsify
Collards	Shallots
Corn	Sorghum (milo)
Endive	Sorghum, grain
Escarole	Spinach
Garlic	Sweet potatoes
Horseradish	Tomatoes
Kale	Turnips

[47 FR 20307, May 12, 1982]

# § 180.1003 Ammonia; exemption from the requirement of a tolerance.

The fungicide ammonia is exempted from the requirement of a tolerance when used after harvest on the raw agricultural commodities grapefruit, lemons, oranges, and corn grain for feed use only.

[44 FR 44845, July 31, 1979]

# § 180.1008 Chloropicrin; exemption from the requirement of a toler-

The insecticide chloropicrin is exempted from the requirement of a tolerance for residues when used as a fumigant after harvest for the following grains: Barley, buckwheat, corn (including popcorn), oats, rice, rye, grain sorghum, wheat.

#### § 180.1011 Viable spores of the microorganism Bacillus thuringiensis Berliner; exemption from the requirement of a tolerance.

(a) For the purposes of this section the microbial insecticide for which exemption from the requirement of a tolerance is being established shall have the following specifications:

(1) The microorganism shall be an authentic strain of *Bacillus thuringiensis* Berliner conforming to the morphological and biochemical characteristics of *Bacillus thuringiensis* as described in Bergey's Manual of Determinative Bacteriology, Eighth Edition.

(2) Spore preparations of *Bacillus thuringiensis* Berliner shall be produced by pure culture fermentation procedures with adequate control measures during production to detect any changes from the characteristics of the parent strain or contamination by other microorganisms.

(3) Each lot of spore preparation, prior to the addition of other materials, shall be tested by subcutaneous injection of at least 1 million spores into each of five laboratory test mice weighing 17 grams to 23 grams. Such test shall show no evidence of infection or injury in the test animals when observed for 7 days following injection.

(4) Spore preparations shall be free of the *Bacillus thuringiensis*  $\beta$ -exotoxin when tested with the fly larvae toxicity test ("Microbial Control of Insects and Mites," R.P.M. Bond et al., p. 280 ff., 1971). This specification can be satisfied either by determining that each master seed lot brought into production is a *Bacillus thuringiensis* strain